

**Bruce A. Manzer
Franklin County
Salem, Maine
A-731-71-F-M/R**

) **DEPARTMENTAL**
) **FINDINGS OF FACT AND ORDER**
) **AIR EMISSION LICENSE**
)

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction:

Bruce A. Manzer, Inc., (Manzer) located in Franklin County, Maine has applied for a renewal of their Air Emission License, permitting the operation of a portable hot mix asphalt plant and portable rock crushing facility.

Manzer has requested to increase their fuel cap from 250,000 gal/yr to 350,000 gal/yr.

B. Emission Equipment:

Process Equipment

Equipment	Process Rate (tons/hour)	Design Capacity Firing Rate	Control Devices	Stack ID	Date of Manufacture
EP1-Dryer Drum Coater	236 ton/hr aggregate 14 ton/hr asphalt	92 MMBtu/hr, 687 gal/hr	baghouse	1	Post 1973
Jaw Rock Crusher	150	N/A	Spray Nozzle	N/A	Post 1973
Cone Rock Crusher	150	N/A	Spray Nozzle	N/A	Post 1973

Fuel Burning Equipment

Equipment	Maximum Capacity (MMBtu/hr)	Fuel Type, %Sulfur	Maximum Firing Rate (i.e. gal/hr)	Stack #
EP-4, Jaw Crusher Drive Unit	2.1	#2 Oil	15.0	1
EP-5, Cone Gen Set	3.2	#2 Oil	22.6	1
*EP2-Oil Heater	0.6	#2 Oil	7.3	1
EP3-Diesel Generator	2.1	#2 Oil	15.0	2

* The EP-2 Oil heater is an insignificant activity and is listed for inventory purposes only.

C. Application Classification:

The application for Manzer is classified as non-major based on the hot mix asphalt plant emissions. This license renewal is for a non-major source and has been processed as such.

II. BEST PRACTICAL TREATMENT

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations. BPT in this case Best Available Control Technology (BACT).

A. Asphalt Plant:

The Dryer was manufactured in 1984, with modifications since, and is subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973. Also, the asphalt plant shall be subject to 40 CFR §60.8(a), and §60.7(a)(1), (2), (3), (b) and (f).

To meet the requirements of BACT for the control of particulate matter (PM) emissions from the asphalt plant, Manzer shall operate a baghouse with emissions

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) **DEPARTMENTAL**
) **FINDINGS OF FACT AND ORDER**
) **AIR EMISSION LICENSE**
3

not to exceed 20% opacity based on a six minute block average. According to 40 CFR, Part 60, Subpart I, the PM limit should be 0.04 grs/dscf, however, BACT is stricter. The asphalt plant shall not exceed 0.03 grs/dscf of PM emissions.

The Asphalt Plant fires #2 fuel oil with a sulfur content not to exceed 0.35% by weight. Regulated pollutants emitted from the Asphalt Plant are particulate matter (PM), particulate matter with a diameter smaller than ten microns (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC).

BACT emission limits for Manzer for the Asphalt Plant are the following:

PM – 0.03 grs/dscf (BPT)

SO₂ – combustion of 0.35% sulfur #2 fuel oil, 0.35 lb/MMBtu.
(Mass Balance)

NO_x – 0.055 lb/ton Hot Mix Asphalt (HMA) (AP-42)

CO – 0.13 lb/ton HMA (AP-42)

VOC – 0.032 lb/ton HMA (AP-42)

Opacity – Visible Emissions from the baghouse shall not exceed
20% opacity on a six minute block average basis, for more
than two, six minute block averages in a three hour period.

The licensed lb/hr emission limits are based on the BACT emission
limits.

The performance of the baghouse shall be constantly monitored by either one of the following at all times the Asphalt Plant is operating:

1. PM detector - when the detector signals excessive PM concentrations in the exhaust stream, Manzer shall take corrective action within 24 hours, or immediately if opacity exceeds 20% based on a six (6) minute block average.
2. Personnel with a current EPA Method 9 visible emissions certification - when the opacity exceeds 20% based on a six (6) minute average, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

In order to document maintenance of the baghouse, Manzer shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance logs shall be located at the facility whenever the facility is in operation.

Visible Emissions shall not exceed an opacity of 20%, except for no more than 5 minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour period.

Petroleum contaminated soil processing cannot exceed 10,000 cubic yards per calendar year without prior approval from the Department. The facility shall only process soils contaminated with gasoline or #2 fuel oil without prior approval from the Department.

B. Rock Crushers

The EP-4 and EP-5 rock crushers were manufactured in 1993 and 2000 respectively. Each is designed as a portable unit with a rated capacity of 150 ton/hr. The EP-4 and EP-5 rock crushers are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of BACT for control of particulate matter (PM) emissions from the rock crushers, Manzer shall operate and maintain water sprays on the rock crushers. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a 6 minute block average basis.

C. Diesel Drive Units

The diesel units (EP-4 and EP-5) are utilized primarily to power the rock crushers. A summary of BACT for EP-4 and EP-5 is the following:

1. The EP-4 and EP-5 units shall burn #2 fuel oil, with a maximum sulfur content not to exceed 0.35% by weight.
2. Chapter 106 regulates fuel sulfur content, however in this case, BACT is stricter. A sulfur content limit of 0.35% and shall be used.
3. Chapter 103 regulates PM emission limits for EP-4 and EP-5.
4. NOx, CO, and VOC emission limits are based upon AP-42 data.
5. Visible emissions from the EP-4 and EP-5 units shall not exceed 30% opacity on a 6 minute block average, except for no more than 2 six minute block averages in a continuous 3 hour period.

D. Diesel Generator:

Diesel generator, EP3, is utilized primarily to provide electrical power to the portable asphalt plant. The Diesel Generator shall use #2 fuel oil with a sulfur

content not to exceed 0.35% by weight and is therefore considered to be receiving BACT.

A summary of BACT for the Diesel Generator (EP-3) is the following:

1. The EP-3 unit shall burn #2 fuel oil, with a maximum sulfur content not to exceed 0.35% by weight.
2. Chapter 106 regulates fuel sulfur content, however in this case, BACT is stricter. A sulfur content limit of 0.35% and shall be used.
3. Chapter 103 regulates PM emission limits for EP-3.
4. NO_x, CO, and VOC emission limits are based upon AP-42 data.
5. Visible emissions from the EP-3 unit shall not exceed 30% opacity on a 6 minute block average, except for no more than 2 six minute block averages in a continuous 3 hour period.

E. Stock Piles and Roadways:

BACT for all potential sources of fugitive PM emissions, including material stockpiles and unpaved roadways, shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality. Visible Emissions shall not exceed an opacity of 20%, except for no more than 5 minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour period.

F. Facility Emissions and Fuel Use Caps:

Manzer shall be limited to 350,000 gal/yr of #2 fuel oil with a sulfur content not to exceed 0.35% by weight, on a 12 month rolling total. In order to run all fuel burning equipment from the same fuel tank, #2 fuel oil not exceeding 0.35% sulfur shall be used. Emissions are calculated using the following fuel breakdown based on the firing rate of each unit.

EP-1 Asphalt Dryer – 322,000 gal/yr

EP-3, EP-4, EP-5 units – 28,000 gal/yr

Total Allowable Annual Emissions for the Facility
(used to calculate the annual license fee)

(Tons/Year)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
EP-1	2.2	2.2	8.0	3.4	8.0	2.0
EP-3,4 &5	0.2	0.2	0.7	8.5	1.8	0.7

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) **DEPARTMENTAL**
) **FINDINGS OF FACT AND ORDER**
) **AIR EMISSION LICENSE**
6

Totals	2.4	2.4	8.7	11.9	9.8	2.7
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III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the above total facility emissions, Manzer is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,
will not violate applicable emission standards,
will not violate applicable ambient air quality standards in
conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-731-71-F-M/R, subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.

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A-731-71-F-M/R**

) **DEPARTMENTAL**
) **FINDINGS OF FACT AND ORDER**
) **AIR EMISSION LICENSE**
7

- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records, to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.

- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

- (13) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

Specific Contitions

(16) Asphalt Plant

- a. Emissions from the hot mix asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks.
- b. The performance of the baghouse shall be constantly monitored by either one of the following at all times the Dryer is operating:
 1. PM detector - when the detector signals excessive PM concentrations in the exhaust stream, Manzer shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
 2. Personnel with a current EPA Method 9 visible emissions certification - when the opacity exceeds 20%, the asphalt batch plant is operating with insufficient control and corrective action shall be taken immediately.
- c. To document maintenance of the baghouse, the licensee shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be located at the facility whenever the facility is in operation.
- d. Opacity from the baghouse is limited to no greater than 20% based on a six (6) minute average, except for no more than two (2) six (6) minute averages in a 3-hour period.
- e. Visible Emissions shall not exceed an opacity of 20%, except for no more than 5 minutes in any 1-hour period. Compliance shall be determined by an

aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour period.

- f. Emissions from the baghouse shall not exceed the following:

Pollutant	grs/dscf	lb/hr
PM	0.03	8.8
PM ₁₀	-	8.8
SO ₂	-	32.4
NO _x	-	13.8
CO	-	32.5
VOC	-	8.0

- g. The licensee shall not process more than 10,000 cubic yards of petroleum contaminated soils per calendar year without prior approval from the Department. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management.
- h. Without prior approval from the Department, the licensee shall only process soils contaminated with gasoline and #2 fuel oil.
- i. The licensee shall not process contaminated soils which are classified as hazardous waste or which have unknown contaminants.
- j. Manzer shall demonstrate compliance with EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities and 40 CFR §60.8(a), and §60.7(a)(1), (2), (3), (b) and (f).
- k. In order to run all fuel burning equipment from the same fuel tank, #2 fuel oil not exceeding 0.35% sulfur shall be used.
- l. Manzer shall maintain records for six years depicting amount of fuel purchased (in gallons) and the sulfur content of the fuel.

(17) **Rock Crushers**

Manzer shall operate and maintain spray nozzles for particulate control on EP-4 and EP-5 rock crushers. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a 6 minute block average basis, except for two (2) six (6) averages in any 3-hour period.

Manzer shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location.

Manzer shall maintain a log detailing the hours of operation on a daily basis for EP-4 and EP-5 rock crushers. The operation log shall be kept on-site at the rock crushing location.

(18) Diesel Units:

Emissions from the Diesel Units EP-3, EP-4, and EP-5 shall not exceed:

	EP-3	EP-4	EP-5
Pollutant	lb/hr	lb/hr	lb/hr
PM	0.24	0.19	0.38
PM ₁₀	0.24	0.19	0.38
SO ₂	0.70	0.56	1.12
NO _x	8.82	7.06	14.11
CO	1.90	1.52	3.04
VOC	0.70	0.56	1.12

Visible emissions from the each diesel unit shall not exceed 30% opacity on a six (6) minute block average basis.

In order to run all fuel burning equipment from the same fuel tank, #2 fuel oil not exceeding 0.35% sulfur shall be used.

Manzer shall maintain records for six years depicting amount of fuel purchased (in gallons) and the sulfur content of the fuel.

(19) Stockpiles and Roadways

Potential sources of fugitive PM emissions including material stockpiles and unpaved roadways shall be controlled by wetting with water, with calcium chloride, or other methods as approved by the Bureau of Air Quality. Visible Emissions shall not exceed an opacity of 20%, except for no more than 5 minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour period.

(20) Manzer shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. Written notification shall also be made to the municipality where the equipment will be relocated to, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

(21) Manzer shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.

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A-731-71-F-M/R

) **DEPARTMENTAL**
) **FINDINGS OF FACT AND ORDER**
) **AIR EMISSION LICENSE**
12

- (22) Manzer shall pay the annual air emission license fee within 30 days of **April 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.
- (23) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/3/2003

Date of application acceptance: 3/18/2003

Date filed with the Board of Environmental Protection _____

This order prepared by Jonathan Voisine, Bureau of Air Quality.